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SPEECH

OF

HON. JUSTIN S. MORRILL,

OF VERMONT,

ON THE

BILL GRANTING LANDS FOR AGRICULTURAL COLLEGES;

DELIVERED

IN THE HOUSE OF REPRESENTATIVES, APRIL 20, 1858.

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AGRICULTURAL COLLEGES.

Mr. CLINGMAN. I now hope my motion will prevail, as I see the gentleman who is entitled to the floor [Mr. MORRILL] is in his seat.

Mr. HOUSTON. Was not the House, when last in consideration of the business of the morning hour, engaged in the call of committees for reports?

The SPEAKER. It was; but there is a pending report.

Mr. HOUSTON. Does the gentleman propose to resume the call, commencing where the call was last suspended?

Mr. CLINGMAN. Certainly.

The motion was agreed to.

The SPEAKER. The pending bill is a bill donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts. The gentleman from Michigan [Mr. WALBRIDGE] moved to postpone its consideration until Wednesday, the 21st instant; and that the bill, and the report of the majority and views of the minority of the committee, be printed. The gentleman from Maine [Mr. WASHBURN] moved to reconsider the bill. The gentleman from Vermont [Mr. MORRILL] is entitled to the floor.

Mr. MORRILL. There has been no measure for years which has received so much attention in the various parts of the country as the one now under consideration, so far as the fact can be proved by petitions which have been received here from the various States, North and South, from State societies, from county societies, and from individuals. They have come in so as to cover almost every day from the commencement of the session.

Before I proceed further, I desire to ask the gentleman from Michigan to withdraw his motion to postpone, in order that I may introduce an amendment, which I propose to offer, merely changing the bill so far as to strike out all in relation to the Territories.

Mr. WALBRIDGE. I will withdraw it for that purpose.

The SPEAKER. There is a pending motion to recommit, which must also be withdrawn, before an amendment will be in order.

Mr. MORRILL. I ask the gentleman from Maine to withdraw the motion to recommit.

Mr. WASHBURN, of Maine. I withdraw the motion.

Mr. MORRILL. I now offer the amendment which I send to the Chair, to come in after the enacting clause, in the nature of a substitute for the whole bill. Mr. Speaker, I know very well that when there is a lack of arguments to be brought against the merits of a measure, the Constitution is fled to as an inexhaustible arsenal of supply. From thence all sorts of missiles may be hurled, and though they "bear wide" of the mark, they do not "kick the owner over." I have also noticed that lions accustomed to roar around the Constitution are quite disposed to slumber whenever it is desirable for certain gentlemen, who carry extra baggage, to leap over the impediment. But, while I do not propose to consider the constitutional argument at any great length, I shall not wholly blink it out of sight; and all the favor asked is, that the Constitution may not be strained and perverted to defeat a measure no less of public good than of public justice—just politically,

just to all the States, and just, above all, to the manhood of our country.

We exert our power and expend millions to protect and promote commerce through light-houses, coast surveys, improvement of harbors, and through our Navy and Naval Academy. Our military "crown-jewels" are manufactured at West Point on Government account. We make immense grants of lands to railroads to open new fields of internal trade. We secure to literary labor the protection of copy-right. We encourage the growth and discipline of hardy seamen by eking out their scanty rewards through governmental bounties. We secure to ingenious mechanics high profits by our system of patent-rights. We make munificent grants to secure general education in all the new States. But all direct encouragement to agriculture has been rigidly withheld.

When Commerce comes to our doors, gay in its attire and lavish in its promises, we "hand and deliver" at once our gold. When Manufactures appears, with a needy and downcast look, we tender, at worst, a "compromise." And then the fiery little god of war bristles up and makes hayoc of all we have left. So that, when Agriculture appears,

"A creature not too wise or good
For human nature's daily food"—

though taxed to support all her sisters and idle brothers, and to espouse their quarrels—we coldly plead there is nothing left for her, and even spurn the admission of her affinity to the family by omitting all mention of her on the records of our statutes. Ceres does not appear among the gods of Olympus—only appears in a picture on one of our Treasury notes!

It is our province, as a nation and as individuals, to do *well* whatever we undertake. The genius and skill of our artists and artisans have been universally commended. Our naval architecture is a subject of national pride. Our engineers are doomed to no merely local fame. Our agricultural implements are beyond the reach of competition. Yet, while we may be in advance of the civilized world in many of the useful arts, it is a humiliating fact that we are far in the rear of the best husbandry in Europe; and, notwithstanding here and there an elevated spot, our tendency is still downward. Does not our general system of agriculture foreshadow ultimate decay? If so, is it beyond our constitutional power and duty to provide an incidental remedy?

The prosperity and happiness of a large and populous nation depend:

1. Upon the division of the land into small parcels.

2. Upon the education of the proprietors of the soil.

Our agriculturists, as a whole, instead of seeking a higher cultivation, are extending their boundaries; and their education, on the contrary, is limited to the metes and bounds of their forefathers.

If it be true that the common mode of cultivating the soil in all parts of our country is so defective as to make the soil poorer year by year, it is a most deplorable fact, and a fact of national concern. If we are steadily impairing the natural productiveness of the soil, it is a national waste, compensated only by private robbery. What are the facts?

In New England, the pasture-fed stock is not on the increase, and sheep-husbandry is gradually growing of less importance, excepting perhaps in Vermont and New Hampshire. The wheat crop, once abundant, is now inconsiderable. The following table will exhibit something of the depreciation of the crops in ten years:

	Wheat—bushels.		Potatoes—bushels.	
	1840.	1850.	1840.	1850.
Connecticut	87,003	41,009	3,414,338	2,689,805
Massachusetts	157,923	31,211	5,385,652	2,385,384
Rhode Island	3,098	49	911,973	651,029
New Hampshire	432,124	185,658	6,305,606	4,304,919
Maine	848,166	296,259	10,392,280	2,435,040
Vermont	495,800	535,955	8,869,751	4,951,014
	2,014,111	1,090,132	33,180,500	19,418,191

In many of the southern States the decreasing production is equally marked

	Wheat, bushels, in 1840.		In 1850.	
Tennessee	4,569,692		1,619,385	
Kentucky	4,803,152		2,142,822	
Georgia	1,801,820		1,088,534	
Alabama	833,052		294,044	
	12,012,725		5,144,795	

These facts, after all proper allowances for errors and a short crop, establish, conclusively, that in all parts of our country important elements in the soil have been exhausted; and its fertility, in spite of all improvements, is steadily sinking. The number of acres of land in use in the State of New York, in 1825, was 7,160,967; in 1855, the number had increased to 26,758,182 acres; but the number of sheep had decreased so that there were nearly three hundred thousand less than there were thirty years ago; and within a period of five years the decrease has been nearly fifty per cent., while the decrease in the number of horses, cows, and swine, is above fifteen per cent. In 1845 the prod-

uct of wheat was 13,391,770 bushels. It has steadily declined since, until the product of the past year did not exceed 6,000,000 bushels. The average yield of corn per acre in 1844 was 24.75 bushels; but in 1854 it was only 21.02 bushels.

The planting lands of southern States have also greatly deteriorated, and some new fertilizer, beyond rotation of crops, is anxiously sought. The average crop of wheat in Virginia, Tennessee, and North Carolina for 1850, was only seven bushels per acre. In Alabama and Georgia but five bushels per acre. And even the largest of any State in the Union, that of Massachusetts, was but sixteen bushels per acre; and this, with the leanest soil, proves her agricultural science far in advance of her sister States. While the crop of cotton in the new lands of Texas and Arkansas was seven hundred to seven hundred and fifty pounds per acre, it was but three hundred and twenty pounds per acre in the older cultivated fields of South Carolina.

In a southern journal I find the following statement:

"An Alabama planter says that cotton has destroyed more than earthquakes or volcanic eruptions. Witness the red hills of Georgia and South Carolina, which have produced cotton till the last dying gasp of the soil forbade any further attempt at cultivation; and the land, turned out to nature, reminds the traveler, as he views the dilapidated condition of the country, of the ruins of ancient Greece."

In Virginia, the crop of tobacco in 1850, was less than that of 1840, by over eighteen million pounds. No crop has proved more destructive to the fertility of the soil than the tobacco crop, and this staple commodity, unless a cheap and effective remedy can be found, must be either banished or it will banish the cultivators. In this State, where tobacco, corn, and wheat have been continued for a century, many districts are no longer cultivated. Liebig says, "that from every acre of this land, there were removed in the space of one hundred years, twelve hundred pounds of alkalies, in leaves, grain and straw." In a letter of General Washington, dated August 6, 1786, to a friend (Arthur Young) in England, he writes:

"The system of agriculture, if the epithet system can be applied to it, which is in use in this part of the United States, is as unproductive to the practitioners as it is ruinous to the landholders. Yet it is pertinaciously adhered to."

Writing to the same person at a subsequent date, (December 5, 1791,) he says:

"The English farmer must entertain a contemptible opinion of our husbandry, or a horrid idea of our land, when he is to be informed that not more than eight or ten bushels of wheat is the yield of an acre."

Since these words were written, little has been done to elevate the character of Virginia farming, and Mount Vernon itself, losing the eye of its master, has lapsed into the general degeneracy. While the yield of wheat has increased in England to thirty bushels per acre, it has sunk to seven in Virginia. The opinion of the "English farmer" may be imagined.

In an address of the late Hon. A. Stevenson, in 1850, to the Agricultural Society of Albemarle, in Virginia, he said:

"It can hardly be necessary to attempt to impress upon you the depressed and wretched condition of the farming interests throughout the State at large, with the exception of some few portions of it, which constitute honorable and praiseworthy exceptions."

Even in Ohio the wheat crop is already less remunerative than formerly, and fields long cultivated are given up to pasturage. In Indiana, Kentucky and Illinois, where so large an amount of grain is sold and carried off, instead of being fed out to stock, they are selling their lands by the bushel in the shape of wheat and corn, and that for a price utterly ruinous. Commerce, founded upon such agricultural economy as this, must come to an end, although the folly will continue to be avenged on posterity even to the third and fourth generation.

In the agricultural survey of Mississippi, recently published, Mr. Harper, speaking of the system pursued in that State, says:

"This agriculture has hitherto been a very exhausting one. Mississippi is a new State; it dates its existence only from the year 1818; and notwithstanding all its fertility, a large part of the land is already exhausted; the State is full of old deserted fields."

A recent address issued by the agricultural convention in South Carolina, declares:

"Our stocks of hogs, horses, mules, and cattle are diminishing in size and decreasing in number, and our purses are being strained for their last cent to supply their places from the northwestern States."

In the late message of the Governor of Georgia, he eloquently discants upon the "educational wants" of his State, and, among many other facts, he notices "the exhaustion of the soil under a system of agriculture that glories in excluding the application of scientific principles."

My time will not permit a greater accumulation of evidence on this point, although I have a cloud of witnesses in reserve, nor is pointing out the nakedness of the land an agreeable duty. The leading fact, however, of a wide-spread deterioration of the soil, stands out too boldly to be denied. The great, irreversible law of American agriculture appears in the constant and increasing

diminution of agricultural products, without any advance in prices. It follows, just in proportion, that capital is disappearing, and that labor receives a diminishing reward. Our country is growing debilitated, and we propagate the consumptive disease with all the energy of private enterprise and public patronage.

There is little doubt but that three fourths of the arable land of our whole country is more or less subjected to this process of exhaustion. It has been estimated by Dr. Lee, of Georgia, that the annual income of the soil of not less than one hundred millions of acres of land in the United States is diminishing at the rate of ten cents an acre. This would amount to \$10,000,000, and involve the loss of a capital of \$166,666,666 annually. A sum greater than all our national and State taxation!

Men waste hundreds of acres of land on the theory that it is inexhaustible, whose entire wealth might not purchase the raw materials—the magnesia, lime, soda, potash, phosphorus, sulphur, carbon, nitrogen, &c.—necessary to make a single acre possessing primitive fertility. Thus the accumulated store of ages passes away in a single generation.

And this waste of soil is not the only thing wasted. For want of the knowledge and skill which the institutions aimed at can alone impart, Colonel Wilder, a gentleman of well-earned fame, estimates the annual loss of the single State of Massachusetts, in the one product of her cereal grains, at \$2,000,000. Another gentleman, in the same State, of great experience in the line of stock, dairy, &c., reports the loss from the same ignorance and unskillfulness in these interests, at \$15,000,000 for that State alone. The loss of New York, upon her four hundred and forty-seven thousand and fourteen horses, (and Ohio, by the census of 1850, had more,) through the universal incompetency in the veterinary art, has been reckoned at not less than two million dollars. The horse, that "wonder of nature," so universally adored by man, for the slightest ailment, is handed over to the butchers of quackery, whose practice is more fatal than that ascribed even to Dr. Hornbook:

"Folk maun do something for their bread,
An' sae maun Death."

We are indebted to Europe for our civilized inhabitants, and for nearly all of our domestic animals, whatever the testimony of the rocks may be as to the preëxistence of the latter. The soil we have acquired by the displacement of the red man. The only thing we constantly dwell upon with complacency is, that we surpass the stock

from which we sprang, and that we present our land better than we found it. But this is not beautiful unless true!

We bring forth new States by the litter, and when we want more, like our Norman ancestors, we commit "grand larceny," and annex them. This progress seems wonderful, but with it appears the bitter fact that these new States in half a century—a brief time in the history of States—become depleted and stationary. This early maturity is followed by sudden barrenness.

Concerted effort is necessary to educate and elevate whole nations. That effort is being made abroad with governmental aid in the lead. Here, in the "model Republic," where a free republican government is installed to guard the general welfare, no such effort is being made. Government has not yet followed the lead of the people, even afar off. We do not ask for constant and persistent outlay and guidance; but a recognition for once, and in the most convenient mode, of the propriety of encouraging useful knowledge among farmers and mechanics, in order to enlarge our productive power, give intelligence to those who will esteem it a higher boon than land or titles, and relieve ourselves from the thralldom of a debt due to holders abroad, for the little agricultural science we now have, and which is quite unsafe to use, by reason of the great differences of soil and climate.

Many foreign States support a population vastly larger per square mile than we maintain, and hold their annual increase; but, by the system of husbandry generally pursued here, the land is held until it is robbed of its virtue, skimmed of its cream, and then the owner, selling his wasted field to some skinflint neighbor, flies to fresh fields with the foul purpose to repeat the same spoliation; and this annual exodus which prevails over all the older States, and even begins upon the first settlements of the new States before their remoter borders have lost sight of the savage, painfully indicates that we have reached the maximum of population our land will support in the present state of our agricultural economy. Our skill must be further developed, or here is our limit. A fever-and-aguish progress, warmed by speculative excitements, and chilled by panics, may be kept up while our unpeopled public domain is supposed to be inexhaustible, and while those who buy, buy to sell, and never otherwise intend "to hold or drive." But there is a barrier already visible, more impassable than the Rocky Mountains, the great sand plains stretching North and South, commencing near the ninety-eighth degree of west longitude, or about the center of Kansas,

and running to the Rocky Mountains, so barren of soil, water, timber, and all vegetation, as to preclude the possibility of settlement by civilized inhabitants. Here the wave must be stayed; but shall we not prove unworthy of our patrimony if we run over the whole before we learn how to manage a part?

We are dilated with the notion that, as a nation, we may now claim rank with the oldest, the best, and the strongest. Our population is rapidly increasing, and brings annually increased demands for bread and clothing. If we can barely meet this demand while we have fresh soils to appropriate, we shall early reach the point of our decline and fall. The nation which tills the soil so as to leave it *worse* than they found it, is doomed to decay and degradation. Other nations lead us, not in the invention and handling of improved implements, but in nearly all the practical sciences which can be brought to aid the management and results of agricultural labor. We owe it to ourselves not to become a weak competitor in the most important field where we are to meet the world as rivals. It touches us in tenderest points, our national honor as well as our private pockets. While we ought to possess the granary of the world, it has been but a brief time since bread-stuffs rose almost to starvation point, and indicated the possibility that we might not forever escape the only test, that of famine, to which our institutions have not been subjected. Able to be independent, in a broader sense than any other people, having an area ninety-five times as large as England and seventeen times as large as Belgium, yet over one hundred million of our imports of the last fiscal year were products mainly of the soil.

It was not until Rome, deluded with military conquests and luxurious living, had become largely indebted to her conquered provinces for her agricultural products, that the "populous north" poured forth that rude horde which obtained the mastery and accomplished the downfall of the Roman Empire.

Agriculture undoubtedly demands our first care; because its products, in the aggregate, are not only of greater value than those of any other branch of industry, but greater than all others together; and because it is not merely conducive to the health of society, the health of trade and of commerce, but essential to their very existence. But, while it is the most useful and earliest of arts, so sluggish have been its advances that we are yet experimenting upon problems which were moot-points with farmers two thousand years ago. Surely an interest so superior, and of such vital

consequence, ought not to be left to lingering routine, but the aid of science should be invoked to accelerate its pace, until it can keep step with that of other industrial pursuits of mankind.

The agriculturists have been, within a few years, aroused to their own wants. Periodicals, from a higher point of dignity and influence, have fired their zeal. The eager crowds which throng to the annual fairs of our agricultural societies, from the *National* down to "all the stars of lesser magnitude," proclaim the universal hunger there is for a profounder information touching that which comes home to their business and bosoms. They know there are mysteries dearly concerning them, and they demand of learning and of science a solution. "Deformed, unfinished," experiments—

—"scarce half made up,
And that so lamely"—

will not do. Farmers will not be cheated longer by unsustained speculations. The test of the field must follow and verify that of the laboratory. The half-bushel and the balance must prove the arithmetic. The result must support the theory. They want substance and not a shadow—bread and not a stone. They know well there is a vast force of agricultural labor hitherto misapplied, muscles that sow where they do not reap, and they demand light—demand to have their arms unpinioned! What has been an art merely to supply physical wants must become a science—though it wears

"hadden gray and a' that"—

doing the same service, but more abundantly, and also doing something to satisfy and elevate the *manhood* of the mass of the people. Let us have such colleges as may rightfully claim the authority of teachers to announce facts and fixed laws, and to scatter broadcast that knowledge which will prove useful in building up a great nation—great in its resources of wealth and power, but greatest of all in the aggregate of its intelligence and virtue.

The mineral wealth of our country, already disclosed, assumes almost unbounded proportions; but destitute of experience as we are, and largely dependent upon the skill of those but half-taught from other lands, our mines are much less remunerative than they would be under the control of Americans, with some fundamental instruction in their vocation.

There is no class of our community of whom we may be so justly proud as our mechanics. Their genius is patent to all the world. For labor-saving contrivances, their tact seems universal; and when any one of them is detailed to do the breathing of any engine, he speedily furnishes

lungs for the engine to do that sort of work for itself. But they snatch their education, such as it is, from the crevices between labor and sleep. They grope in twilight. Our country relies upon them as its right arm to do the handiwork of the nation. Let us, then, furnish the means for that arm to acquire culture, skill, and efficiency.

We have schools to teach the art of manslaying and to make masters of "deep-throated engines" of war; and shall we not have schools to teach men the way to feed, clothe, and enlighten the great brotherhood of man? It is just on the part of statesmen and legislators, just on the part of other learned professions, that they should aid to elevate the class upon whom they lean for support, and upon whom they depend for their audience. There is no clashing of interests. It is not designed to make every man his own doctor, or every man his own lawyer; but to make every man understand his own business. A lawyer is not the worse for having an intelligent client, nor a clergyman the worse for having a prosperous parishioner. Our present literary colleges need have no more jealousy of agricultural colleges than a porcelain manufactory would have of an iron foundry. They move in separate spheres, without competition, and using no raw material that will diminish the supply of one or the other.

The farmer and the mechanic require special schools and appropriate literature quite as much as any one of the so-called learned professions. The practical sciences are nowhere else called into such repeated and constant requisition. Would it be sound policy for one who expected to expound Blackstone to limit his reading to a muck manual or to agricultural chemistry? If it would not, how are we to expect one to solve all the scientific relations of earth, water, air, and vegetable and animal life, who has only explored reading, writing, and arithmetic?

All other professions and pursuits reckon among their brightest jewels men who were recruited from the robust ranks of agriculture. It is the untainted blood from this source that supplies the waste in the pulpit, the bar, the forum, and the camp. No other pursuit in life obtains this universal tribute, that, whatever may be the present idol of devotion, all classes and ranks of men hope to reach that estate first bestowed upon Adam, and become proprietors of the soil as their ultimate earthly paradise. Washington, Calhoun, Clay, and Webster, are more secure of love and homage as farmers than even as men of highest public renown; and Mount Vernon, Fort Hill, Ashland, and Marshfield, the Meccas of America, prove the

ideal truth of the words of Pliny, that "the earth took delight in being tilled by the hands of men crowned with laurels and decorated with triumphant honors."

Many of the purest embellishments of literature have been drawn from the field of the husbandman. Gems, not only of poesy and song, but of painting and sculpture, of philosophy and eloquence, thus have their origin. Let agriculture, then, make its reprisals, and build up a literature at once intelligible and satisfactory for its millions of thinkers.

We need a careful, exact, and systematized registration of experiments—such as can be made at thoroughly scientific institutions, and such as will not be made elsewhere. These tests and these tables, so furnished, will give us, when reported and collated, as is provided for in this bill, a rational induction of principles upon which we may expect to establish a proper science; and the more widely gathered are the facts, the sounder the science. The discoveries of Columbus-struck amateurs will not be trumpeted forth until they have received the sanction of a body less sanguine than the vendors of a patent. Spurious dogmas will be touched lightly with the spear of Ithuriel, and no longer squat around the ears of weary plowmen.

We need to test the natural capability of soils and the power of different fertilizers; the relative value of different grasses for flesh, fat, and milking purposes; the comparative value of grain, roots, and hay, for wintering stock; the value of a bushel of corn, oats, peas, carrots, potatoes, or turnips, in pounds of beef, pork, or mutton; deep plowing as well as drainage; the vitality and deterioration of seeds; breeds of animals; remedies for the potato disease and for all tribes of insects destructive to cotton, wheat, and fruit crops. These, and many more, are questions of scientific interest even beyond their economical importance in the researches of the agriculturist.

The philosophy of manures, or of giving plants their appropriate food, is in its infancy. In England they have, through the process of feeding wheat, raised the average yield to double its former amount. Liebig, employed in 1840 by the Royal Agricultural Society, was almost the first, after Sir Humphrey Davy, to practically apply agricultural chemistry so as to arrest the attention of farmers. It was at his suggestion, only seventeen years ago, that guano was brought into notice. In 1851, notwithstanding its extravagant price, England imported two hundred and forty-three thousand and fourteen tons of this concentrated fertilizer, proving that the fabled eggs of

the golden goose have been eclipsed in value by the "evacuations of sea-gulls."

It is plainly an indication that education is taking a step in advance when public sentiment begins to demand that the faculties of young men shall be trained with some reference to the vocation to which they are to be devoted through life. It is clear that intellectual discipline can be obtained under more than one mode, and, if the primary education sought for this purpose can be afterwards applied to practical use in the destined occupation, it is a point clearly gained. Law, theology, and medicine, have been specialties from the time whereof the memory of man runneth not to the contrary. Special schools for art, trade, and commerce, though of later growth, have been long established in many places throughout Europe, and in our own American cities. In some places these institutions, intended to be practical rather than speculative, go by the not inapt name of *Real Schools*. Agricultural colleges and schools in many portions of Europe are a marked feature of the age. In our own country the general want of such places of instruction has been so manifest that States, societies, and individuals, have attempted to supply it, though necessarily in stinted measure. The "plentiful lack" of funds has retarded their maturity and usefulness; but there are some examples, like that of Michigan, liberally supported by the State, in the full tide of successful experiment. Adequate means to start on a scale commensurate with the great objects in view seems an indispensable prerequisite. States have been unable to impose at once the increased taxation that would be required, and the liberality of private individuals has been unequal to the task. But if this bill shall pass, the institutions of the character required by the people, and by our native land, would spring into life, and not languish from poverty, doubt, or neglect. They would prove (if they should not literally, like the schools of ancient Sparta, hold the children of the State) the perennial nurseries of patriotism, thrift and liberal information—places "where men do not decay." They would turn out men for solid use, and not drones. It may be assumed that tuition would be free, and that the exercise of holding the plow and swinging the scythe—every whit as noble, artistic, and graceful, as the postures of the gymnastic or military drill—would go far towards defraying all other expenses of the students. Muscles hardened by such training would not become soft in summer or torpid in winter; and the graduates would know how to sustain American institutions with American vigor.

It is desirable that the agricultural hive, in all

its industrial ramifications, should furnish such generous rewards, such noble incentives, as to reclaim the truants who have fled to and clog and embarrass other pursuits and professions with untrained adventurers. The New York Mercantile Agency states the number of stores in the United States at 204,061, which would be about one store to every one hundred and twenty-three inhabitants. This shows

"Trade wields the sword; and Agriculture leaves
Her half-turned furrows; other harvests fire
An avarice of renown."

I suppose that it might be a fair estimate to say that eighty out of every hundred of these traders become insolvent every ten years. But had they invested their capital and labor in agriculture, it may be safely assumed that not twenty out of every hundred would have failed to secure a competency.

Adam Smith, after having noticed "the precarious and uncertain possession" of capital engaged in commerce and manufactures, says:

"That which arises from the more solid improvements of agriculture is much more durable, and cannot be destroyed but by those more violent convulsions occasioned by the depredations of hostile and barbarous nations continued for a century or two together."

Mr. Speaker, when a money pressure overtakes the country, like that through which we are just passing, in searching for its cause no one thinks of charging it upon agriculturists. They are not only industrious, but frugal. Thrift is their cardinal virtue. They do not produce, vend, nor consume luxuries. They hasten slowly, and go untouched of all epidemical speculations. But when the crisis comes—when commerce, manufactures, banks, and even Government itself, quail beneath the storm—all eyes turn to the hardy tillers of the soil for relief. They stand, as they always stand, with enough for themselves and something to spare. They furnish raw material, freight, means of liquidation or of supply; and yet, when they would be even more useful, shall we pronounce them unworthy, and deny them opportunity?

It is one of the political axioms of the writer already quoted, everywhere accredited, that national wealth is greatly increased or diminished by the more or less skill, dexterity, and judgment, with which labor is generally applied. As legislators, we can have no subject before us of higher intrinsic importance.

Manufacturers, when their books disclose a losing business, change to a different class of goods; merchants, in like circumstances, to a different trade and other markets; but all history shows

the tenacity with which habits acquired in the cultivation of land cling to a people from generation to generation. In all ages farmers have been stable, conservative, and reverent to antiquity. The same plow as described three thousand years ago at

"Athens, the eye of Greece, mother of arts
And eloquence,"

is still in use among the modern Greeks. The *habitant* of Canada as much believes to-day in the propriety of placing the yoke on to the horns of the ox, in order to secure the entire strength of the animal, as he did in the days when he owed allegiance to the Grand Monarch. The old Roman plow, sometimes drawn, in the days of Nero, "by a wretched ass on the one side, and an old woman on the other," still retains its place in Italy, and in parts of Spain and the south of France. If we turn to the descendants of the Puritans, we shall find some of these yet kill their pork and plant their corn in "the old of the moon." In all ages, and in all countries, the habits, as well as the virtues of agriculturists, remain fixed.

Agricultural men dwell apart. Their business keeps them at home, and they cannot combine to secure general improvements, or to make their complaints heard. They suffer in silence—the rolling years only noted by "seed time and harvest."

All over the highest civilized parts of Europe we find the different Governments alive to the wants of agriculture. They have established ministers of instruction, model farms, experimental farms, botanical gardens, colleges, and a large number of secondary schools, with no other purpose—and they need no higher or nobler—than the improvement of the industrial resources—the farms and the farmers—of the respective countries. All these are chiefly supported by large annual expenditures of the different Governments, except so far as any may be self-supporting institutions. The effect is in the largest degree favorable to the people and to increased production. But the teachings of European professors are of little consequence to Americans, even if they could be comprehended and instantaneously adopted, as they are rarely suited to our circumstances. Can we not have something that we may claim as our own? Young Americans should have some chance to study agriculture as a profession, and be attracted to it as to a learned, liberal, and intellectual pursuit. Is it true, as our detractors assert, that science can flourish only under the patronage of royalty?

This system of education is known to be more complete in Prussia than in any other nation of

Europe. It may be said that all the children attend school until they are thirteen years old; and agricultural colleges, and schools for the mechanic arts and higher trades, are liberally sustained, and with a much larger staff of professors than is common in the United States. This nation is making rapid progress in wealth and intelligence.

In Saxony they have a number of experimental stations, or experimental farms, with laboratories attached, and five or more schools exclusively for agriculture. There is no country in the world where agriculture and all branches of industry are pursued with more enterprise and success than in the little monarchy of Saxony; and there, of 315,185 children between the ages of six and fourteen years, 311,454 were, in 1851, in actual attendance at school.

Belgium has its agricultural schools also, and great opportunities for general education are given, especially in the larger towns. Here farming is conducted most on a scientific basis; and Belgium, supporting a population of three hundred and thirty-six to the square mile, in a climate inferior to that of Kentucky or Virginia, averaging only twenty-six and twenty-three to the square mile, is the first in rank as an agricultural State in Europe. Its once noted battle-fields are now equally noted as model farms. This preëminence is chiefly the result of scientific attention to manures.

France, from the time of Napoleon, has done much for agriculture. Beet-sugar, the mulberry, the grape, as well as Merino sheep and the Thibet goat, have received imperial attention. No expense in France is shirked in the cause of agricultural science. Her botanical gardens, chemical laboratories, physiological museums, and schools for instructions in the veterinary art, surpass all others in existence, and with her five agricultural colleges, and almost one hundred inferior agricultural schools are performing herculean labors for the elevation of the farming population of the empire. The Revolution and the successive wars loaded France with an immense debt; but this was rapidly extinguished from the never-failing resources of her soil. The abrogation of the game laws and many other feudal enactments has aided her progress, but the breaking up and division of every estate at the death of the owner; doubtless retards much of permanent improvement. But for this abuse of a true principle, and the illiterate condition of her people, France would have been the pioneer of rural economy.

As it is, we look more to England and Scotland, and to Ireland to some extent, for principles and facts for our instruction. Here we find

agriculture developed in all its noblest attitudes. Science, wealth, taste, mind, and rank, combine to increase its profit, beauty, and honor. The large fortunes of individuals enable Science to delve constantly in its behalf; but the Government, far from thinking that enough, annually contributes liberally to the same object, especially in Ireland. Colleges and schools of agriculture are numerous in Great Britain, but their usefulness is greatly restricted on account of the limited attendance arising from the jealousies of caste. Agricultural improvement is imposed on such a people from necessity. The heavy taxation, the enormous consumption of luxuries, and density of population, could not be otherwise supported. Science, like the rod of Aaron, has touched the soil, and behold! the crops are doubled. Nothing but this in Ireland could have checked the dispersion of a nation—a nation, too, that in ten years preceding 1846, exported more grain than all of the United States. Notwithstanding the magnificent proportions of her commerce, freckling all seas with its flag, and notwithstanding her all-embracing manufactures, with their countless fires blazing day and night, England, were her agriculture to retrograde, or the land fail, “to yield her increase,” would be numbered with things that were, and the earth no more rock at the sound of Trafalgar or Waterloo.

The Government of Russia, the growing giant of Europe, has recently taken a conspicuous lead in the education of its people, and the cause of agriculture there holds a deserved prominence. Of colleges, schools, and special schools devoted to agriculture, Russia maintains a greater number than any other nation, France only excepted. No nation has arisen in the political firmament with a steadier splendor than the great northern bear, which, instead of pawing, like Milton’s lion, “his hinder-parts to get free” from the mud of the Nile, is struggling to get free from the Polar ice of ignorance. The back-bone of Russia, in her recent contest, lay in her agricultural forces, and against these but half-tutored resources of men and wealth, half the strength of Europe could only wage a drawn battle. Here we find a despotism, from motives merely of governmental policy, elevating labor, placing it within the power of her agriculturists and artisans to become educated and skillful, while our people with the Government in their own hands, parley on the brink, and do nothing for their own benefit.

Spain is weak in all her industry, because, while an uneducated Spanish gentleman, it is said, cannot be found, so neither can a peasant be found who can read or write.

Italy, anciently far in advance of all her cotemporaries, in theory and practice, is now behind all other States in her farming and industrial pursuits, and here we find but one person in fifty provided with any instruction whatever.

I might contrast Bohemia with Saxony, and even Ireland with England, or the different cantons of Switzerland with each other, to show the difference between ignorant and educated culture of the soil, but I have not space.

Thus, we behold the suffrages of all the wiser civilized nations in favor of the measure contemplated by the bill under consideration; examples as much to be imitated as those of an opposite character are to be shunned. If other nations advance, though we but pause, we are distanced. The voice of our country, if it could find utterance, is believed to be overwhelmingly in favor of the establishment of these institutions on our own soil. They are as much needed and will be as gratefully accepted in one direction of our country as another. More than four fifths of our population are engaged in agricultural and mechanical employments. This vast number out of thirty millions of people now, to be increased to fifty millions in less than twenty years, will forever furnish an inexhaustible supply of pupils who will not forsake their calling. Is it not of grave importance to give this vast force an intelligent direction?

In 1850 there were, between the ages of five and fifteen, 5,106,257 inhabitants of our country. There were engaged in the professions of law, medicine, and theology, 94,575 citizens; and in all the colleges of the United States there were 27,159 pupils only. If these pupils required two hundred and thirty-nine colleges for their instruction, how many ought we to have for the sons of the millions engaged in agriculture? Why, sir, the number which it may be hoped will be provided for under the auspices of this bill will hardly do more for some years than to supply teachers that will be required in secondary schools.

At the close of the Revolution there was much difficulty about these lands. The States within whose boundaries the ungranted crown lands were situated felt disposed to claim them, unjustly as the other States thought, as State property. But finally all yielded to the Union, using in their conveyance words of like import—that the lands should be considered *a common fund for the use and benefit of all*. Since then the revolutionary debt has been extinguished; gratitude for military services has been acknowledged to the extent of forty-four million one hundred and nine thousand eight hundred and seventy-nine acres; new States

have been properly treated with statesman-like liberality; now by this bill the old States, by whose blood and treasure the public domain was so largely acquired, will be allowed some direct share, but not greater than that of others, in the distribution. What clause in the constitution interposes any barrier to this?

It cannot be pretended that this is one of a class of cases; for here is one where four fifths of all the people are directly, and all the rest indirectly, interested. No other can come up representing more than a fractional part of the remaining fifth. Our Government is also directly interested, as the holder and dealer in large tracts of land. If it be for the interest of small holders of land, it must be for the interest of a large holder. There is not even an exclusion of those who do not cultivate their land. If the measure shall in any degree increase the future profits of cultivators, the value of all land, wherever it may be, whether held in small or large quantities, will be augmented. The cotton-gin has hardly done more to raise the price of estates in the South, than would now the discovery of a remedy for the boll-worm, and other destructive insects, which gore and gorge the cotton-plant; nor have the reaping machines been of more advantage to western wheat fields, than would be a cure for the wheat midge. These invaders may not be overcome; may not be within the reach of human enginery; one sixth part of the cotton and wheat crop may still be lost; but some resulting improvements may safely be predicated upon the labors of thirty-two or more institutions actively engaged in scientific agriculture. There can be no doubt that the benefits to be derived, will prove an ample consideration for the lands disposed of. One of the most adequate considerations ever received for any estate by parent, is called, in legal parlance, "love and affection;" and that also will not be wanting here.

These considerations are tendered by those elder States, to whose toils and expenditures the marketable value of our public domain is so largely indebted. Blot out the canals and railroads of Pennsylvania, New York, and Ohio, costing over two hundred million dollars, and the buffalo and the fur-trader on the western prairies might strive for the mastery, but civilization would postpone her triumphs over the savage to a remoter age. Our "western empire" might be taxed the whole cost of the New York and Erie canal, and then be the gainer; and yet the bill I am advocating will not appropriate, among all the States, one fifth part of its original cost, and not one half of the amount of the yet unpaid canal debt of New York.

The third section of article four of the Constitution declares:

"The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States."

Here is the whole of it; and there is no restriction save that in the deeds of cession. Our public lands are no longer pledged for a national debt; and, if held for the common benefit of all, how can it be wrong to give all their rightful and exact proportion to the limited extent now proposed? Who will be wronged? What better thing shall we do with them? Whatever discordant opinions there may have recently existed touching the true interpretation of this clause, as to persons, no one will pretend that it does not give complete control over the land (the property) belonging to the United States; and the measure I am considering is a literal compliance with the powers conferred in that it proceeds "to dispose of and make all needful rules and regulations" respecting so much as is embraced in the bill.

Grants of lands during and since 1850 have been made to ten States and one Territory, to aid in the construction of more than fifty railroads, of an extent of about nine thousand miles, amounting to 25,403,993 acres. These grants were made on the argument of "prudent proprietorship," and alternate sections were given away to double the price of the remainder. Whether the policy will result in any loss to the Government or not, these States were treated with a liberality they will never forget. As a prudent proprietor, may we not do that which will not only tend to raise the value of all land, whether owned by individuals or by Government, but make agricultural labor more profitable and more desirable as a pursuit in life?

Up to the 30th of June, 1857, we had ungrudgingly donated to different States and Territories sixty-seven million seven hundred and thirty-six thousand five hundred and seventy-two acres of land for schools and universities. No one shall be twitted for such acts by me; but, if the purpose be a noble one as applied to a Territory sparsely populated, it is certainly not less so to States thickly peopled. If such donations are constitutional to inchoate States, can they be unconstitutional when proposed to the Old Dominion, the Empire, Keystone, and Little Rhody? Is there a more urgent demand for such aid in behalf of the people of a Territory free of debt, whose frame of government is supported by the nation, than in behalf of States bearing all the debt and burdens of the national Government, and bending under \$245,211,259 of present State indebtedness? Surely the endowment of agricultural colleges

ought not to depend upon the resources of States already so oppressively laden, nor upon the come-by-chance charities of individuals, but upon the liberal administration of the Government which has been expressly constituted the trustee of an ample store for the common benefit of all the States.

The executive and legislative precedents which can be arrayed to sustain the principles embodied in this measure are of great weight and authority. Commencing with those coeval with the Constitution, and continuing to a recent date, we have the opinions and acts of men that few at the present day would not think it robbery to claim for any favorite an equality.

Washington brought the subject of agriculture before Congress in his first message. He thought it a subject within the constitutional jurisdiction, and his experience increased that conviction; for in his last message, December 7, 1796, he recurs to it with elaborate argument. He says:

"It will not be doubted that, with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this task becomes more apparent, and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public purse; and to what object can it be dedicated with greater propriety?"

Thus we have the very germ of the whole project. "The cultivation of the soil," institutions "supported by the public purse," he exclaims, "to what object can it be dedicated with greater propriety?" It cannot be doubted that donations of land for agricultural colleges would have received the approval of Washington. He proceeds:

"I have heretofore proposed to the consideration of Congress the expediency of establishing a national university, and also a military academy. The desirableness of both these institutions has so constantly increased with every new view I have taken of the subject, that I cannot omit the opportunity of, once for all, recalling your attention to them.

"The assembly to which I address myself is too enlightened not to be fully sensible how much a flourishing state of the arts and sciences contributes to national prosperity and reputation. True it is, that our country, much to its honor, contains many seminaries of learning, highly respectable and useful; but the funds upon which they rest are too narrow to command the ablest professors in the different departments of liberal knowledge for the institution contemplated, though they would be excellent auxiliaries."

This will be enough to satisfy all as to the opinions of Washington. Let us now see what were the opinions of Jefferson. In his sixth message he thus speaks:

"Education is here placed among the articles of public care; not that it would be proposed to take its ordinary

branches out of the hands of private enterprise, which manages so much better all the concerns to which it is equal; but a public institution can alone supply those sciences which, though rarely called for, are yet necessary to complete the circle, all the parts of which contribute to the improvement of the country; and some of them to its preservation."

The message goes on to show that if public moneys were to be used for roads and canals, an amendment of the Constitution would be necessary, but that *land* might be used for that purpose without an amendment. He then proceeds to urge his favorite university thus:

"The present consideration of a national establishment for education, particularly, is rendered proper by this circumstance also, that if Congress, approving the proposition, shall yet think it more eligible to found it on a donation of lands, they have it *now* in their power to endow it with those which will be amongst the *earliest* to produce the necessary income. This foundation would have the advantage of being independent in war, which may suspend other improvements, by requiring for its own purposes the resources destined for them."

I submit that here the whole question of constitutional power is covered, as well as a powerful argument suggested, by Jefferson.

For want of time, all reference to Madison, Monroe, and Adams, must be omitted. Jackson was the steadfast friend of agriculture, and the first, in 1837, to call into the Patent Office a practical farmer (Mr. Ellsworth) to collect statistics. As Senator, General Jackson voted a township of land to La Fayette. He approved, June 30, 1834, of giving thirty-six sections of land to the Polish exiles expelled from Europe by Austria. He approved, April 2, 1830, of a bill giving land to a State for the construction of the Miami canal. January 13, 1831, he approved of a bill granting a single section for schools, in Lawrence, Mississippi. March 2, 1833, an act was passed changing the Illinois canal grant to a railroad grant, with obligations attached. This was approved by General Jackson. That part of the Cumberland road in Ohio was surrendered in 1831, and that in Virginia in 1833, to the respective States, with a compact that they should keep the same in repair and collect the tolls—approved by General Jackson, and the act decided since to be constitutional by the Supreme Court of the United States. General Jackson rejected the land bill of 1833, mainly for the reason that it first gave to the States wherever the lands might lie, twelve and a half per cent. before there was to be any division among the other States. This he denounced as injustice and inequality. It is enough to say that no such objections can be raised against the division proposed now. There can be no question that General Jackson and the men who cooperated with

him would have approved of grants of land to all the States for the benefit of agricultural colleges.

The bill donating lands to the State of Connecticut, for a seminary of learning for the deaf and dumb, passed the Senate in 1819, without even a call of the yeas and nays. The bill approved January 29, 1827, donating lands to Kentucky for a seminary of learning for the deaf and dumb, passed the Senate by a vote of 27 to 6; and we find such men as King of Alabama, Johnson of Kentucky, Benton of Missouri, Eaton and White of Tennessee, and Woodbury of New Hampshire, voting for the measure. In the House, the bill passed by 120 to 43; and among the yeas will be found the names of James Buchanan, James K. Polk, Cambreleng, Livingston, McDuffie, and Wickliffe. Surely these are no mean authorities on constitutional questions, to be added to the names of Crawford, Monroe, Calhoun, Webster, Clay, and Clayton. In 1838, a township of land in Florida was granted to Dr. Henry Perrine, to "promote the cultivation of tropical plants." In 1841, there was donated to each of the new States five hundred thousand acres of land. The present law, now on our Statutes at Large, is, that when duties are brought down below twenty per cent., the proceeds of the public lands are to be distributed to the States. Congress donated to the State of Tennessee, August 6, 1846, of unproductive lands lying in that State, one million three hundred thousand acres; on the condition that the State should endow and establish a college, at an expense of not less than forty thousand dollars. Over fifty million acres of swamp lands have been given to different States. President Taylor, in his message of 1849, says:

"No direct aid has been given by the General Government to the improvement of agriculture, except by the expenditure of small sums for the collection and publication of agricultural statistics, and for some chemical analyses, which have been, thus far, paid for out of the patent fund. This aid, in my opinion, is wholly inadequate."

President Fillmore, in his message of 1850, says:

"Agriculture may justly be regarded as the great interest of our people. Four fifths of our active population are employed in the cultivation of the soil; and the expansion of our settlements over new territory is daily adding to the number engaged in that vocation. Justice and sound policy, therefore, alike require that the Government should use all the means authorized by the Constitution to promote the interests and welfare of that important class of our fellow-citizens. And yet it is a singular fact that, whilst the manufacturing and commercial interests have engaged the attention of Congress during a large portion of every session, and our statutes abound in provisions for their protection and encouragement, little has yet been done directly for the

advancement of agriculture. It is time that this reproach to our legislation should be removed; and I sincerely hope that the present Congress will not close their labors without adopting efficient means to supply the omissions of those who have preceded them."

The constitutionality of a measure does not depend upon the amount, but upon the principle involved. The citations made show that there is a great preponderance, almost uninterrupted from the foundation of the Government, of executive, legislative, and judicial authority, to prove that the power of Congress to *dispose* of the public lands at its discretion is plain, absolute, and unlimited. The derivative title to a moiety of the lands imposes a condition upon the disposal of that portion so derived—a condition itself persuasively urging our present object—which is "for the use and common benefit of all the States."

While agriculture has been a neglected field of legislation, it does not now call for the exercise of novel constitutional power. Congress has long asserted the right to dispose of the public lands to establish school funds and universities, and no one now questions the soundness of such a policy. This measure is but an extension of the same principle over a wider field—wider in its applications, but not wider in its amount, for the number of acres now proposed for all the States is scarcely larger than have been donated to individual States. It is general and not local in its reach. If we have the power to make special grants, in particular and individual cases, we certainly have the power, and it would be far more just and expedient to exercise it, in its general application. Pass this measure and we shall have done—

Something to enable the farmer to raise two blades of grass instead of one;

Something for every owner of land;

Something for all who desire to own land;

Something for cheap scientific education;

Something for every man who loves intelligence and not ignorance;

Something to induce the father's sons and daughters to settle and cluster around the old homesteads;

Something to remove the last vestige of pauperism from our land;

Something for peace, good order, and the better support of Christian churches and common schools;

Something to enable sterile railroads to pay dividends;

Something to enable the people to bear the enormous expenditures of the national Government;

Something to check the passion of individuals, and of the nation, for indefinite territorial expansion and ultimate decrepitude;

Something to prevent the dispersion of our population, and to concentrate it around the best lands of our country—places hallowed by church spires, and mellowed by all the influences of time—where the consumer will be placed at the door of the producer; and thereby

Something to obtain higher prices for all sorts of agricultural productions; and

Something to increase the loveliness of the American landscape. Scientific culture is the sure precursor of order and beauty. Our esthetic Diedrich Knickerbockers, who have no land, will have a fairer opportunity to become great admirers of land that belongs to others.

Many of our wisest statesmen have denounced our general land system as a prolific source of corruption; but what corruption can flow from endowing agricultural colleges? Here is neither profligacy nor waste, but a measure of justice and beneficence. Without meaning to express my opinion for or against the homestead policy, I ask, in all candor, what man is there in the whole length and breadth of our country, who would not prefer, if he could have his choice, such an education as might be obtained at one of these colleges to a warrant for one hundred and sixty acres of land?

The persuasive arguments of precedents; the example of our worthiest rivals in Europe; the rejuvenation of worn-out lands, which bring forth taxes only; the petitions of farmers everywhere, yearning for "a more excellent way;" philanthropy, supported by our own highest interests—all these considerations impel us for once to do something for agriculture worthy of its national importance.

By the recent statement of the Land Office, we have 1,088,792,498 acres of land to dispose of; and when this bill shall have passed, there will then remain about one thousand and eighty-three millions of acres. We shall still be the largest landholder in the world, while confessedly we are not the best farmers. Let it never be said we are "the greatest and the meanest of mankind."

APPENDIX.

A bill donating public lands to the several States which may provide colleges for the benefit of agriculture and the mechanic arts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there be granted to the several States, for the purpose hereinafter mentioned, five millions, nine hundred and twenty thousand acres of land, to be apportioned to each State a

quantity equal to twenty thousand acres for each Senator and Representative in Congress, to which the States are now respectively entitled.

*SEC. 2. And be it further enacted, That the land aforesaid, after being surveyed, shall be apportioned to the several States, in sections or subdivisions of sections, not less than one quarter of a section; and whenever there are public lands in a State, worth \$1 25 per acre, (the value of said lands to be determined by the Governor of said State), the quantity to which said State shall be entitled, shall be selected from such lands, and the Secretary of the Interior is hereby directed to issue to those States in which there are no public lands of the value of \$1 25 per acre, land scrip to the amount of their distributive shares in acres under the provisions of this act, said scrip to be sold by said States, and the proceeds thereof applied to the uses and the purposes prescribed in this act, and for no other use or purpose whatsoever: *Provided*, That in no case shall any State to which land scrip may thus be issued, be allowed to locate the same within the limits of any other State, but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States, subject to private entry.*

SEC. 3. And be it further enacted, That all the expenses of management and superintendence of said lands, previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned.

SEC. 4. And be it further enacted, That all moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of land scrip hereinafter provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in section fifth of this act,) and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. And be it further enacted, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinafter contained, the previous assent of the several States shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied, without diminution, to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for

sites or experimental farms, whenever authorized by the respective Legislatures of said States.

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretence whatever, to the purchase, erection, preservation, or repair, of any building or buildings.

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid.

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters as may be supposed useful—one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and to the Smithsonian Institution, and the agricultural department of the Patent Office, at Washington.

Fifth. When lands shall be selected from those which have been raised to double the *minimum* price, in consequence of railroad grants, they shall be computed to the State so selecting at double the quantity.

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